Fiscal Year 2005 Water 2025 Challenge Grant Awards

Arizona

Yuma County Water Users Association: The Association will line 5.8 miles of canals. The sealing of these canals with concrete will reduce seepage losses and increase water delivery efficiencies. This project is estimated to save 7,583 acre-feet of water annually and will make more water available to other Colorado River users. The total project cost is $2 million, including a *Water 2025* contribution of $300,000.

California

Bard Water District, Winterhaven: The water district will pipe a half mile of unlined canals that serve Quechan Tribal and private lands. The district also will replace two existing checks on the main canal and install four high water alarms. The piping will reduce seepage losses, and the replacement of the checks and four high water alarms will increase water delivery efficiencies and service to water users while protecting against crop and home damage due to flooding. The project is anticipated to save 195 acre-feet of water per year. The total project cost is $602,288, including a *Water 2025* contribution of $229,680.

Coachella Valley Water District: The water district's demonstration project will include quantifications of current and historic water use using GIS, detailed field monitoring, implementation of conservation practices on demonstration fields and quantification of water savings. The project is anticipated to save at least 1,000 acre-feet of water per year. The total project cost is $909,840, including a *Water 2025* contribution of $300,000.

Contra Costa Water District: The water district will install 50 water meters on currently unmetered lots. By installing meters, water users will be billed for actual water use instead of at a flat rate. By paying for water that they actually use, they will be more inclined to use less water. In addition, leaks in the customer delivery lines will be located and repaired by the customer. Results of a previous pilot program have shown that metering these lines reduced water consumption by nearly two-thirds. It is estimated that the project can save 440 acre-feet of water annually. The total project cost is $281,010, including a *Water 2025* contribution of $137,582.

Imperial Irrigation District: The district will install automatic gates to be operated remotely at the heads of 10 lateral canals. The project also will include linking the automatic gates into an existing Supervisory Control and Data Acquisition system. The project is estimated to save 912 acre-feet of water per year. The total project cost is $857,548, including a *Water 2025* contribution of $300,000.

Soquel Creek Water District: The water district will purchase and install 325 weather-based irrigation controllers for residential, commercial, and institutional landscapes. The district is solely dependent on groundwater and relies on an overdrafted groundwater basin. The project is estimated to save 112 acre-feet of water per year. The total project cost is $218,790, including a *Water 2025* contribution of $109,395.

Stockton East Water District: The water district will develop a Supervisory Control and Data Acquisition system that will be used to monitor 12 sites in key locations in the water distribution system. The project will also provide for off-site water gate control at three locations in the distribution system. The availability of real time data will increase the efficiency of the district's agricultural water delivery system. The project is estimated to save 3,600 acre-feet of water per year. The total project cost is $335,236, including a *Water 2025* contribution of $150,255.

Tulare Irrigation District: The district will expand its Supervisory Control and Data Acquisition system to monitor operations remotely at existing regulating reservoir facilities, upgrade its water accounting capabilities, and modernize infrastructure at critical points to minimize canal spills. The projects are estimated to save 25,000 acre-feet of water per year and better manage up to 150,000 acre-feet of water per year. The project will cost $765,300, including a *Water 2025* contribution of $300,000.

Colorado

Grand Valley Irrigation Company: The irrigation company will install six manual check structures to maintain canal levels, raise the banks around the canals to reduce damage to canals from storm run-off, and install measuring devices to measure water deliveries. The project is estimated to save 3,594 acre-feet of water annually. The project will cost $423,242, including a *Water 2025* contribution of $200,367.

Groundwater Management Subdistrict, Greeley: The subdistrict will create a rebate program for 50 percent of the cost of meters to monitor the subdistrict's 937 groundwater pumping wells. The project is estimated to save up to 2,870 acre-feet of water per year and will better manage up to 11,480 acre-feet of water per year. The total project will cost $1,060,852, including a *Water 2025* contribution of $300,000.

West Divide Water Conservation District and Silt Water Conservancy District, Silt: The two districts will cooperatively develop a new pump and pipeline facility that will connect the Silt Pump Canal with the existing West Lateral of the Farmers Irrigation Company. The project will allow marketing of approximately 1,080 acre-feet of water, including 300 acre-feet of saved water, from the pipe installation and unused storage allocation. The total project will cost $406,871, including a *Water 2025* contribution of $203,435.

Idaho

Lewiston Orchards Irrigation District: The district will replace 2,650 feet of an open canal with 60-inch pipe and will install a flow meter at the District's largest storage reservoir to better manage water deliveries. The project is estimated to save 630 acre-feet of water a year. The total project cost is $362,437, including a *Water 2025* contribution of $181,218.
Preston Whitney Reservoir Company: The reservoir company will replace 23,333 feet of open canal with PVC pipe and modify the works structure at Lamont Reservoir. The project is estimated to save 1,800 acre-feet of water a year. The total project cost is $877,153, including a *Water 2025* contribution of $300,000.

Nebraska

Bostwick Irrigation District: The district will replace 10.8 miles of open ditch with a buried pipe. It also will install water meters to measure the water deliveries. The project is expected to save 2,000 acre-feet of water annually. The total project cost is $977,266, including a *Water 2025* contribution of $300,000.

New Mexico

City of Las Cruces: The city will install pumps on the Elephant Butte Irrigation District water distribution system so that the city's Burn Lake can be used as a regulating reservoir for storm water runoff, operational spills, and irrigation water. The city also will install pumps so that Elephant Butte Irrigation District water stored in Burn Lake can be returned to the district as needed. The project is expected to save 3,750 acre-feet of water a year. The total project cost is $174,889 including a *Water 2025* contribution of $86,350.

Elephant Butte Irrigation District: The district will install 100 flow control meters to implement its metering and monitoring plan to meter all farm deliveries using telemetry. The project is estimated to save 8,000 acre-feet of water per year, with 75,000 acre-feet better managed. The total project cost is $615,000, including a *Water 2025* contribution of $300,000.

Oklahoma

Lugert-Altus Irrigation District: The district will continue its modernization efforts to upgrade its irrigation delivery system by expanding its remote monitoring and automation sites, improving flow measurement, and replacing and rehabilitating their farm turnouts. The project is expected to save 8,000-10,000 acre-feet of water per year, with 54,000-68,000 acre-feet better managed. The total project cost is $600,000, including a *Water 2025* contribution of $300,000.

Oregon

East Fork Irrigation District: The district will construct a one-mile pipe to complete the middle phase of the new Central Canal Pipeline. The pipeline will convert a century-old, unlined irrigation ditch and creek conveyance system to a pipeline, and conserve water to assist recovery of a threatened steelhead run. The project is estimated to save 1,745 acre-feet of water per year. The total project cost is $1,338,000, including a *Water 2025* contribution of $300,000.

Grants Pass Irrigation District: The district will replace an existing open lateral canal with culvert and pipe. The project is estimated to save 1,965 acre-feet of water per year. The total project cost is $33,270, including a *Water 2025* contribution of $16,538.

Swalley Irrigation District: The district will partner with 16 other irrigation districts, one ditch company and one canal company to use geographic information systems and remote sensing to assess aerial imagery to evaluate the districts for seepage loss and determine unauthorized use. This information will help the districts to make decisions about implementing water conservation practices. Once complete, the project is estimated to save up to 165,386 acre-feet of water each year. The total project cost is $365,218, including a *Water 2025* contribution of $182,609.

Three Sisters Irrigation District: The district will replace two miles of open irrigation delivery canals and ditches with pipe. The project will make additional water available for instream flows to meet Endangered Species Act requirements. The project is estimated to save 800 acre-feet of water a year. The total project cost is $1,057,400, including a *Water 2025* contribution of $300,000.

Vale Oregon Irrigation District: The district will convert 6 miles of open dirt irrigation canals to pipe to save water currently being lost to evaporation and seepage. The project is estimated to save 4,320 acre-feet of water per year. The total project cost is $883,200, including a *Water 2025* contribution of $300,000.

South Dakota

Belle Fourche Irrigation District: The district will line about one mile of the inlet canal for the Belle Fourche Reservoir to reduce water seepage and flooding. Saved water will be marketed in the district's water bank. The project is estimated to save 1,825 acre-feet of water per year. The total project cost is $250,000, including a *Water 2025* contribution of $125,000.

Texas

Brownsville Irrigation District: The district will install 14 flow meters and 10 remotely automated gates. This project will allow for more accurate metering of water flows and levels through 14 pipelines. The project is estimated to save

3,538 acre-feet of water per year. The total project will cost $624,711, including a *Water 2025* contribution of $300,000.

Cameron County Irrigation District No. 2, San Benito: The district will install 11 pressure transducer flow meters, 11 automated vertical gates, and a Supervisory Control and Data Acquisition system. This system will allow for accurate metering of water flows and levels through 11 canals. The project is estimated to save 8,751 acre-feet of water a year. The total project will cost $650,000, including a *Water 2025* contribution of $300,000.

City of El Paso Utilities Water Service Board: The board will install four flow gaging stations and 15 electrical conductivity measurement stations on the Rio Grande and various drains. These stations will all be equipped with telemetry and provide internet-based access to real-time and archived data on flows and water quality. The project is estimated to save 7,600 acre-feet of water per year and better manage 931,840 acre-feet of water. The total project will cost $357,386, including a *Water 2025* contribution of $165,000.

City of McAllen Public Utility: The utility will conduct a leak detection and repair of the city's distribution system. This will include the replacement of 4,290 leaking or malfunctioning residential water meters. The utility also will replace a 30-inch raw water meter with a 40-inch raw water meter. The project will save an estimated 5,032 acre-feet of water per year. The total project cost is $502,484, including a *Water 2025* contribution of $186,168.

Utah

Ashley Valley Reservoir Company: The reservoir company will replace 30,000 feet of open canal with pipeline to ensure equal distribution of water among water users. The project is estimated to save 1,240 acre-feet of water annually. The total project cost is $1,923,000, including a *Water 2025* contribution of $300,000.

Bear River Small Irrigators Inc.: The irrigators will install a real-time, automated, diversion reporting system along the Bear River in Cache Valley, Utah. The project also includes installation of flow sensors with telemetry to provide accurate and timely water diversion data. The project is estimated to save 18,450 acre-feet of water a year. The total project cost is $246,386, including a *Water 2025* contribution of $123,184.

Davis and Weber Counties Canal Company: The company will install ultrasonic meters on all three of its existing pressure irrigation reservoirs. Telemetry sensors and radios also will be installed in order to monitor all key system facilities at one centralized location. The project will save an estimated 1,200 to 1,500 acre-feet of water a year. The total project will cost $491,198, including a *Water 2025* contribution of $245,599.

Duchesne County Water Conservancy District: The district will integrate multiple continuing real-time monitoring efforts to form a comprehensive monitoring system for the entire county. The project is estimated to save 11,000 acre-feet of water a year. The total project cost is $382,790, including a *Water 2025* contribution of $162,790.

Metropolitan Water District of Salt Lake and Sandy: The water district will install an injection well, infiltration pond, and an injection trench to enable it to store water in the Salt Lake Valley Aquifer through surface infiltration. The district will also work with its member agencies to develop a water bank to market the stored water. It is estimated that this project will enable the district to market 300 acre-feet of water per year. The total project cost is $632,500, including a *Water 2025* contribution of $300,000.

Payson City and Strawberry Highline Canal: The project will replace a 100-year old open ditch with a buried pipe. This will eliminate above-ground pollution sources, decrease water loss from evaporation and seepage, and increase water flow to users. The project is estimated to save 200 acre-feet of water a year. The total project cost is $648,644, including a *Water 2025* contribution of $300,000.
Sandy City: The city will enclose 1.25 miles of an open channel. The project will save an estimated 330 acre-feet of water each year. The total project cost is $854,093, including a *Water 2025* contribution of $300,000.

Sevier River Water Users Association: The association will enhance and expand the existing Supervisory Control and Data Acquisition system in a five county area to allow for expansion of real-time monitoring and control systems. The project will save an estimated 22,500 acre-feet of water per year. The total project cost is $529,040, including a *Water 2025* contribution of $247,540.

Springville Irrigation District: The district will install 20 Supervisory Control and Data Acquisition sites. The project will enable more efficient water management and accounting of water deliveries. The project is estimated to save 450 acre-feet of water every year. The total project cost is $182,600, including a *Water 2025* contribution of $91,300.

Washington County Water Conservation District, St. George: The district will install telemetry at 34 sites in Washington County. The project will enable the district to monitor river flows and integrate flow data into the district's existing Supervisory Control and Data Acquisition system. The project will save an estimated 8,600 acre-feet of water a year. The total project cost is $449,880, including a *Water 2025* contribution of $224,940.

Wellsville-Mendon Conservation District: The district will line 5,000 feet of open canal at two locations and install metering devices at all turnouts. The project is estimated to save 1,978 acre-feet of water a year. The total project cost is $434,496, including each *Water 2025* contribution of $215,998.

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